(No Model.)

J. B. DAILEY.

TROLLEY WHEEL.

No. 565,725. Patented Aug. 11, 1896.

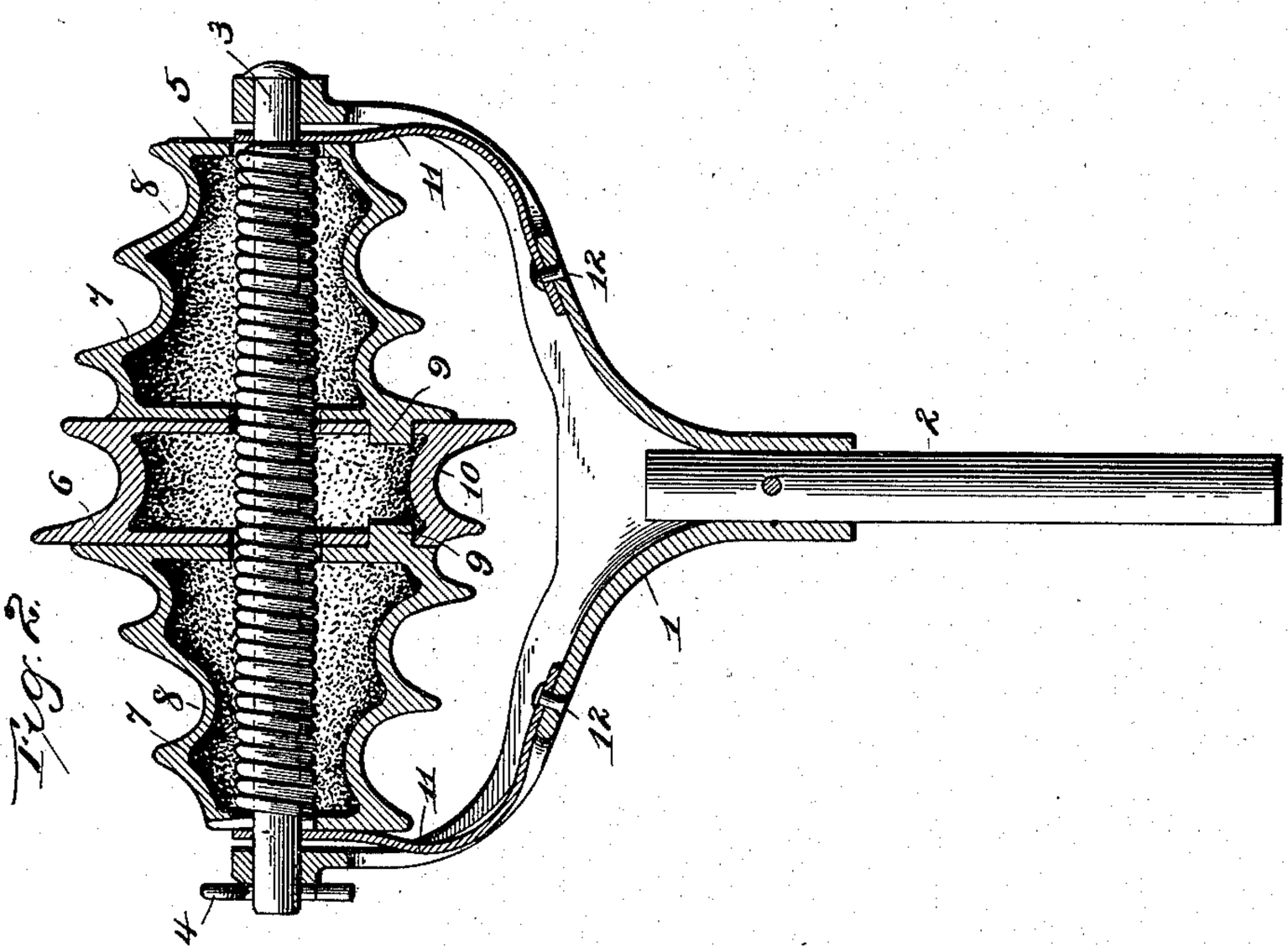

Fig. 2.

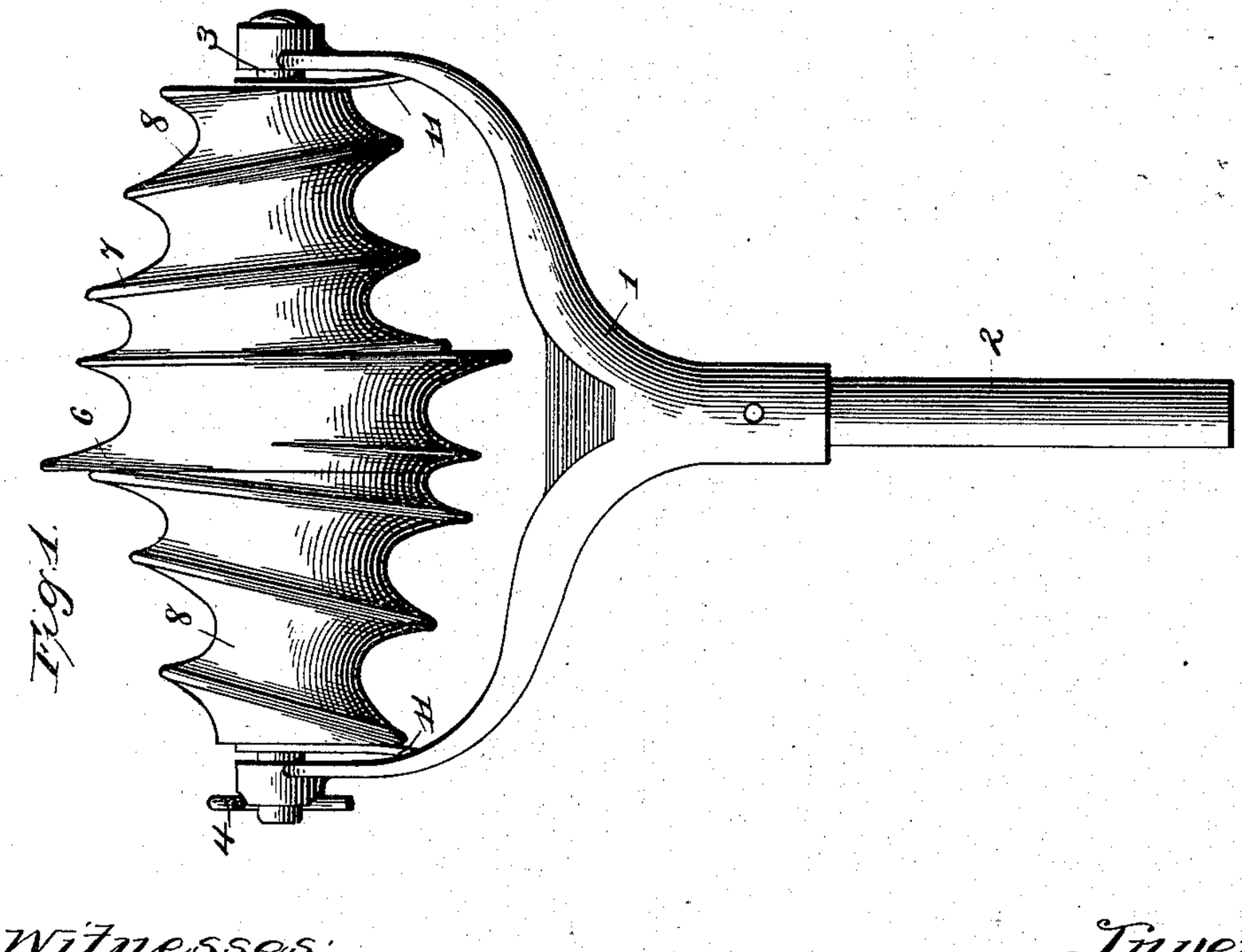

Fig. 1.

Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN B. DAILEY, OF PHILADELPHIA, PENNSYLVANIA.

TROLLEY-WHEEL.

SPECIFICATION forming part of Letters Patent No. 565,725, dated August 11, 1896.

Application filed October 22, 1895. Serial No. 566,531. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. DAILEY, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia, State of Pennsylvania, have invented certain new and useful Improvements in Trolley-Wheels, of which the following is a specification.

My invention relates to a new and useful improvement in trolley-wheels, and has for its object to produce such a device that will center itself upon the feed-wire by its travel thereon; and with this end in view my invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, I will describe its construction and operation in detail, referring by numerals to the accompanying drawings, forming part of this specification, and in which—

Figure 1 is an elevation of my improved trolley-wheel, and Fig. 2 a central section thereof.

Similar numerals denote like parts in both views of the drawings.

1 represents the fork provided with a suitable shank 2, by which it is secured to the ordinary trolley-arm, and 3 is a shaft-rod secured in the upper extremity to the fork by means of a suitable head or cotter-pin 4. Coiled upon this shaft-rod is a spring 5, adapted to revolve thereon.

6 is a trolley-wheel proper, and 7 are conical shaft-pulleys having formed therein spiral grooves 8, and these pulleys bear against the side faces of the trolley-wheel and are locked thereto by means of lugs 9, which project into suitable openings in said faces, so that the trolley-wheel and the two pulleys revolve in unison. The ends of the spring 5 are connected to the pulleys 7 in such manner as to be caused to revolve therewith, thus forming a bearing for the trolley-wheel, as well as the pulleys upon the shaft-rod 3. One of the spiral grooves 8 is right-handed and the other left-handed, and are so formed as to merge into the center groove 10 and the trolley-wheel upon opposite sides thereof, so that should the trolley be placed upon the feed-wire and the latter fall into one of the grooves 8 it would be fed by the revolving of the pulley toward the trolley-wheel and finally drop within the groove 10, where it would remain during further travel of the trolley-wheel upon said wire. The advantages of this will be readily understood, as it increases the space which may be utilized in placing the trolley upon its feed-wire, thus obviating the necessity of close attention by the operator in replacing a trolley-wheel which has slipped from its feed-wire.

11 are flat springs secured at 12 to the fork and adapted to bear against the ends of the pulleys, so as to transmit the current from said pulleys to the motor of the car carrying the trolley, and it also serves to prevent side and radial play of said trolley.

It will be observed by reference to Fig. 2 that the pulleys and trolley-wheel are cast hollow, the object of which is to decrease the weight, and as the pulleys and trolley-wheel are cast in separate sections it will be obvious that their construction is rendered simple and economical.

Having thus fully described my invention, what I claim as new and useful is—

1. In a device of the character described, a fork having secured in its extremity a shaft-rod, a coil-spring arranged around said shaft, a trolley-wheel and two grooved pulleys, one upon either side of said wheel, journaled upon said shaft, and contact-springs 11, adapted to bear against the ends of said pulleys, as shown and specified.

2. In a device of the character described, the fork 1, having secured in its extremities the shaft-rod 3 and coil-spring 5, arranged upon said shaft, trolley-wheel 6 and pulleys 7 adapted to turn with said coil-spring upon said shaft, and right and left grooves formed in said pulleys, whereby the line-wire when falling in either of said grooves will be fed to the groove in the trolley-wheel, substantially as shown and for the purposes set forth.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

JOHN B. DAILEY.

Witnesses:
S. S. WILLIAMSON,
SAMUEL L. TAYLOR.